

## Adding A Frequency Counter to the Realistic DX160

The below is reprinted without permission from Darrell Steele  
<http://radionut53.tripod.com/id235.html>

The secret of adding a counter to the DX-160, is knowing where to connect the frequency counter. Our target is resistor R12. You will need about 2 feet (0.6 meter) of RG-174 coax, a 68picofarad disc capacitor, and a connector that matches your counter.

Now unplug the radio before you remove any covers!!

Remove the radio's top and bottom covers. Looking at the top side of the circuit board, locate Q4, R12, and C12. On the bottom side there is a copper trace that connects all three of these components together. This common connection is the pickup point, and where the 68 picofarad capacitor lead connects to.

1. There are 2 ways to connect the coax and capacitor, either topside, or on the bottom. Topside is easy access but small soldering, bottom side has easy soldering but will require an access hole to run the coax through. If you moved your antenna rod as outlined in Mod #2, use one of the old open screw holes to run the coax through. As long as the coax does not interfere with the tuning strings, run it through a opening in the front.
2. Strip a coax cable end about 1 inch (25mm). Unbraid the shield, gather it into a single line, and twist it into a wire. Take the 68 pico farad capacitor and trim the wires back to 1/4 inch long (6mm). Strip back some of the center wire insulation, and solder the 68 pico farad capacitor to the center lead. The outer coax shield braid will get soldered and connected to ground, so don't cut it away.

Our 68 picofarad feed capacitor connects to R12 on the end that goes to Q4 and C12. The coax braid connects to the grounded side of R12.

If you top side connect, polish the wires on R12 with a pencil eraser, soldering will be much easier. Having a stick type eraser around for this purpose is a electronics technician's secret. Typewriter erasers even have a brush!

Put the covers back on, add your BNC connector to the coax, and fire it up! Connect the counter, set it for high impedance and 0-31Mhz operation, and you should see the frequency, always .455Mhz greater than where your ears are. If you have a 455Khz subtracting counter or module, then you see the received frequency.

**PHOTOS BELOW DEPECT MY OWN MOD.**





